

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/13357

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.⁷ F21S2/00, F21V5/00, F21V7/12, G02F1/13357, F21Y101:02,
F21Y103:00, G09G3/36, G09G3/34, G09G3/21

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.⁷ F21S2/00, F21V5/00, F21V7/12, G02F1/13357, F21Y101:02,
F21Y103:00, G09G3/36, G09G3/34, G09G3/21

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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Kokai Jitsuyo Shinan Koho	1971-2004	Toroku Jitsuyo Shinan Koho	1994-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2002-55675 A (Matsushita Electric Industrial Co., Ltd.), 20 February, 2002 (20.02.02), Page 7, left column, line 26 to page 11, left column, line 40; Figs. 1 to 12 & WO 01/22391 A1 & EP 1237138 A1	1, 24-26 2-23, 27-28
Y	JP 06-265732 A (Dainippon Printing Co., Ltd.), 22 September, 1994 (22.09.94), Page 3, right column, lines 38 to 48; page 4, right column, lines 2 to 4; Fig. 7 (Family: none)	2-7
Y	JP 04-275526 A (Fujitsu Ltd.), 01 October, 1992 (01.10.92), Page 5, left column, lines 26 to 39; Fig. 6 (Family: none)	8-11, 13-17

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search
26 February, 2004 (26.02.04)

Date of mailing of the international search report
09 March, 2004 (09.03.04)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 61-133502 A (Mitsubishi Electric Corp.), 20 June, 1986 (20.06.86), Page 2, lower left column, line 11 to page 3, upper right column, line 19; Figs. 1 to 2 (Family: none)	11-17
Y	JP 07-272507 A (NEC Home Electronics Ltd.), 20 October, 1995 (20.10.95), Page 3, left column, lines 30 to 34; Fig. 1 (Family: none)	18-19
Y	JP 2002-75038 A (Sony Corp.), 15 March, 2002 (15.03.02), Page 4, left column, line 17 to right column, line 30; Figs. 1 to 4 (Family: none)	20-23
Y	CD-ROM of the specification and drawings annexed to the request of Japanese Utility Model Application No. 81963/1991 (Laid-open No. 4133/1993) (Harison Denki Kabushiki Kaisha), 22 January, 1993 (22.01.93), Page 7, lines 3 to 8; Fig. 3 (Family: none)	20-21
Y	JP 2002-40453 A (Seiko Epson Corp.), 06 February, 2002 (06.02.02), Page 4, left column, lines 33 to 39 (Family: none)	27
Y	JP 2002-82626 A (Sharp Corp.), 22 March, 2002 (22.03.02), Page 5, left column, lines 35 to 38 (Family: none)	28
A	JP 07-261175 A (Hitachi, Ltd.), 13 October, 1995 (13.10.95), Full text (Family: none)	1-24
A	JP 11-119217 A (Matsushita Electric Industrial Co., Ltd.), 30 April, 1999 (30.04.99), Full text (Family: none)	1-24

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Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:

because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:

because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
(See extra sheet)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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Continuation of Box No. II of continuation of first sheet(1)

A matter in independent claim 1 is not clearly novel as disclosed in document JP 2002-55675 A (Matsushita Electric Industrial Co., Ltd.), 20 February, 2002 (20.02.02), page 7, left column, line 26 to page 11, left column, line 40, Figs 1 to 12. Consequently the matter is not a special technical feature within the meaning of PCT Rule 13.2, second sentence, since it makes no contribution over the prior art.

The matter in independent claim 25 is disclosed in the above document just as judged in the above and is not a special technical feature.

The matter in independent claim 26 is disclosed in the above document just as judged in the above and is not a special technical feature.

There exists no other common feature to be considered to be a special technical feature within the meaning of PCT Rule 13.2, second sentence, excluding a feature common to claims 2-7, a feature common to claims 8-10, a feature common to claims 12-17, a feature common to claims 18-19, a feature common to claims 20-21, and a feature common to claims 22-23.

Therefore, there exists among 13 groups of inventions in the following no technical features for linking the groups of inventions as described in PCT Rule 13.2, and accordingly it is clear that those inventions do not fulfill the requirement of unity of invention.

1. Claim 1
2. Claims 2-7
3. Claims 8-10
4. Claim 11
5. Claims 12-17
6. Claims 18-19
7. Claims 20-21
8. Claims 22-23
9. Claim 24
10. Claim 25
11. Claim 26
12. Claim 27
13. Claim 28